

THE MURPHY CHEMICAL COMPANY, LIMITED,
WHEATHAMPSTEAD.
HERTS.

ADVISORY BULLETIN No. 2

ON

**The Spring Control
of
Apple Capsid Bugs.**

(PLESIOCORIS RUGICOLLIS, FALL & LYGUS PABULINUS, L.)

KEEP THESE BULLETINS IN THE GRATIS FILING
COVER WE SUPPLY.

RECOMMENDATIONS FOR THE Spring Control of Apple Capsid Bugs.

NATURE OF DAMAGE.

As a rule, the only injurious species of Capsid found on apples is the Apple Capsid, *Plesiocoris rugicollis*, Fall., but sometimes, and especially where currants and gooseberries are grown under the trees, the Currant Capsid, *Lygus pabulinus*, L. is found injuring both the shoots and fruit of the apple.

The eggs of both species are laid under the bark of the apple twigs and branches, with only a tiny portion exposed; this is the "cap" through which the egg breathes. The winter is passed in this stage and in the spring the eggs hatch and give rise to small green bugs which very much resemble greenfly. They are, however, more active than the latter. These young bugs feed on the sap and where they puncture the leaf, a reddish-brown spot appears. By their feeding, they cause the terminal shoots to stop growth or die back and this encourages the formation of numerous side shoots, which produce a badly shaped or stunted tree. Later, these young bugs feed on the fruit, causing the apples to develop abnormally. Where the bugs puncture the fruit, cracks, scars or pimples appear as the apples grow, and characteristic, irregular, cork-like patches are formed. Many apples fail to develop or fall off and those left, in the case of a bad attack, are almost of no market value.

CONTROL.

Wherever possible, these pests should be controlled in the egg stage by the use of either a Tar-Petroleum mixed Wash at 10% or, better, by a Petroleum Wash at 7½%, following an earlier application of a Tar Distillate Wash at 6 to 10%. Capsid washes, by forming a film of oil over the "cap" of the egg, cut off its supply of air and so prevent its hatching.

Where such *winter* spraying has been omitted or where the sprays have not been efficiently applied, a *spring* wash containing Nicotine, directed against the young bugs, is the best method of control.

We recommend the following wash :—

Nicotine (95/98%)	8-10 ozs.	Nicotine (95/98%)	4 ozs.
Soft Soap	... 8-10 lbs. or	Soft Soap	... 4 lbs.
Water	... 100 galls.	Water	... 40 galls.

For very hard waters a good wetter and penetrant should be used in place of soap.

We advise the application of the wash as a coarse drenching spray directed downwards on to the shoots with a pressure of not less than 200 lbs. per square inch. The spray must be driven hard into the expanding trusses, where the young Capsids shelter. When possible choose a warm still day on which to apply the spray.

The correct time for the application of this wash is during the ten days immediately preceding full bloom.

The period over which the bugs hatch is very variable—in some seasons only a week, in others a month. On an average it appears to be 8—12 days. As an aid to

timing the spray in a normal season, a watch should be kept for the first sign of spotting of the leaves and after an interval of 14 days (to allow the rest of the bugs to hatch) the spray should be applied. This date will coincide in most seasons with the period of ten days immediately preceding full bloom. In a season when a warm spell is followed by a cold period, hatching is prolonged and another application of a nicotine wash is advisable after petal fall.

In practice, many growers apply a nicotine wash for Capsid and follow up almost immediately with their pink bud Scab spray. With a large acreage, however, it may be impossible to do this and then a combined Scab and Capsid wash is a necessity. This must be applied as a coarse, driving spray, as outlined above, and not as a fine mist. A larger disc must be used than that normally employed for Scab spraying. In order to avoid the risk of injury, owing to the large amount of Lime Sulphur applied to the tree, it is advisable to reduce the concentration of the Lime Sulphur from 1 in 20 to 1 in 40.

We recommend as a combined Scab-Capsid spray:—

Nicotine (95/98%) 8-10 oz.	Nicotine (95/98%) 4 oz.
Wetter and Penetrant* or	Wetter and Penetrant*
Lime Sulphur 2½ galls.	Lime Sulphur 1 gall.
Water up to 100 galls.	Water up to 40 gall.

**The amount of Wetter depends on the material used.*

With a heavy infestation of Capsid or if any trees were sprayed before all the bugs had hatched, a second application of a nicotine wash, just after petal fall, is advisable. If applied within 7 days of petal fall, it will also serve as the first Sawfly Wash. This may be nicotine and soft soap alone or the combined Scab-Capsid wash

as above. The trees must be thoroughly drenched and if the combined wash is used, the concentration of the Lime Sulphur must be reduced, for most varieties, from 1 in 60 to 1 in 80 and for Cox, Lane, Bath, Grieve, etc., from 1 in 100 to 1 in 120.

It is advisable, prior to the application of this post-blossom spray, to grease band the trees to trap any Capsids trying to ascend the trunks after having been knocked down, but not killed, by the wash.

It is much easier to kill the small bugs before blossoming, than the large bugs after blossoming. The spray applied during the ten days immediately preceding full bloom is the more important one.

We do not recommend the general use of nicotine as a Dust, instead of a Wet Spray, for the control of Capsids on apples, because on large trees dusts have not given satisfactory control. On small bush trees, where a thorough coating of the tree can be obtained, a nicotine dust can often be used with advantage. Nicotine dust should be applied in warm weather and in the absence of wind to ensure its maximum efficiency.

Derris cannot be recommended instead of nicotine for Capsid control on apples, as so far it has given inferior results.

If you require further information on this, or any pest, do not hesitate to write us. If possible, forward specimens, securely packed, of damaged material, or insects thought to be responsible for the damage.

We supply:—

Mortegg Tar Distillate Wash.

Mortoyle Petroleum Wash.

Capsomort Tar Petroleum Wash.

Alvesco Lime Sulphur.

British Nicotine (95/98%).

Insecticide Soft Soap.

Spreadite Wetter and Penetrant.

